

## **Data Structures:**

<b>List Name</b>	<b>Class</b>	<b>Chosen DS</b>	<b>Justification</b>
Finished Passengers	Company	Queue	<p>A queue is used in order to hold the finished passengers and dequeue the finished passengers from the queue by the order they were enqueued</p> <p>The finished passengers are enqueued inside that queue and then they are dequeued in the simulate by the order they were enqueued FIFO.</p>
Events	Company	Queue	<p>A queue is used for the Events in order to enqueue them by the order they were read and then dequeue them by the same order so that it is FIFO</p>
NPpassengersF WPpassengersF NPpassengersB WPpassengersB	Station	Queue	<p>The queue was chosen for the following lists in order to enqueue the passengers by the time they arrived and dequeue them respectively so FIFO</p>
SPpassengersF SPpassengersB	Station	Priority Queue	<p>A priority queue was used for the special passengers as the passengers in that list are ordered by their priority so that when queueing the passengers with the higher priority are dequeued first</p>

Wpbus SpNpbus	Station	Queue	A queue is used to hold the buses as they move from station zero by order so that when you start dequeuing the buses they are dequeued by FIFO
passengerList	Bus	Priority Queue	The passengerlist inside the bus is a priority queue as the passengers inside the bus must be ordered by the way they are going to leave the bus 'end station' so that there is a priority for queueing the passengers based on there end station